

Listing of the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

1-78. (Canceled)

79. (New) An *in vitro* method for producing one or more product nucleic acid molecules comprising two or more *lox* or *att* sites, the method comprising:

- (a) generating a linear nucleic acid molecule; and
- (b) contacting the linear nucleic acid molecule with (i) one or more adapters comprising one or more *lox* or *att* sites and (ii) a topoisomerase, under conditions sufficient to add one adapter to each terminus of the linear nucleic acid molecule, thereby producing the product nucleic acid molecule.

80. (New) The method of claim 79, wherein the linear nucleic acid molecule is generated by polymerase chain reaction.

81. (New) The method of claim 79, wherein the linear nucleic acid molecule is produced by mechanical or enzymatic techniques.

82. (New) The method of claim 79, wherein the linear nucleic acid molecule is produced by digesting one or more nucleic acid molecules with one or more restriction endonucleases.

83. (New) The method of claim 79, wherein the linear nucleic acid molecule is an isolated genomic DNA molecule.

84. (New) The method of claim 79, wherein the linear nucleic acid molecule is a cDNA molecule.

85. (New) The method of claim 79, wherein the *lox* site is selected from the group consisting of *loxP* and *loxP511*.

86. (New) The method of claim 79, wherein the *att* sites are selected from the group consisting of lambdoid *attB*, lambdoid *attL*, lambdoid *attP* and lambdoid *attR* sites.

87. (New) The method of claim 79, wherein the *lox* or *att* sites at both termini of the linear nucleic acid molecule are the same.

88. (New) The method of claim 79, wherein the *lox* or *att* sites at both termini of the linear nucleic acid molecule are different from each other.

89. (New) The method of claim 88, wherein the *lox* or *att* sites do not recombine with each other.

90. (New) The method of claim 79, wherein the *lox* or *att* sites are engineered *lox* or *att* sites.

91. (New) The method of claim 79, wherein the first linear nucleic acid molecule is a library of nucleic acid molecules.

92. (New) An *in vitro* method for producing one or more product nucleic acid molecules comprising one or more *lox* or *att* sites, the method comprising:

- (a) generating a first linear nucleic acid molecule; and
- (b) contacting the first linear nucleic acid molecule with (i) one or more second linear nucleic acid molecules comprising one or more *lox* or *att* sites and (ii) a topoisomerase, under conditions sufficient to add one second linear nucleic acid molecule to each terminus of the first linear nucleic acid molecule, thereby producing the product nucleic acid molecule.

93. (New) The method of claim 92, wherein the first linear nucleic acid molecule is generated by polymerase chain reaction.

94. (New) The method of claim 92, wherein the first linear nucleic acid molecule is produced by mechanical or enzymatic techniques.

95. (New) The method of claim 92, wherein the first linear nucleic acid molecule is produced by digesting one or more nucleic acid molecules with one or more restriction endonucleases.

96. (New) The method of claim 92, wherein the first linear nucleic acid molecule is an isolated genomic DNA molecule.

97. (New) The method of claim 92, wherein the first linear nucleic acid molecule is a cDNA molecule.

98. (New) The method of claim 92, wherein the *lox* site is selected from the group consisting of *loxP* and *loxP511*.

99. (New) The method of claim 92, wherein the *att* sites are selected from the group consisting of lambdoid *attB*, lambdoid *attL*, lambdoid *attP* and lambdoid *attR* sites.

100. (New) The method of claim 92, wherein the *lox* or *att* sites at both termini of the first linear nucleic acid molecule are the same.

101. (New) The method of claim 92, wherein the *lox* or *att* sites at both termini of the first linear nucleic acid molecule are different from each other.

102. (New) The method of claim 101, wherein the *lox* or *att* sites do not recombine with each other.

103. (New) The method of claim 92, wherein the *lox* or *att* sites are engineered *lox* or *att* sites.

104. (New) The method of claim 92, wherein the first linear nucleic acid molecule is a library of nucleic acid molecules.